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(54) **INFORMATION RECORDING MEDIUM AND
INFORMATION RECORDING AND
REPRODUCING SYSTEM**

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(57) Abstract:

PROBLEM TO BE SOLVED: To obtain an information recording medium having an information recording thin film as a recording layer in which the configuration of atoms is changed by irradiation of energy beams of form recording marks, and to enable rewriting in many times in this medium.

SOLUTION: A first reflection layer formed nearer to a recording layer has a compsn. essentially comprising Al, Cu, Ag, Au, Pt, Pd, and the sum of the compsn. ratios of these elements is controlled to $\geq 65\%$ and $\leq 95\%$. The second reflection layer consists of an Al alloy or the like having a larger Al content than the first layer. Thereby, the obtd. medium has good recording sensitivity, good reproducing signal quality, enables repetition of recording and overwriting, and is compatible with a reproducing-only optical disk for reproducing.

紫外線硬化樹脂保護膜

第2反射層

第1反射層

中間層

記録層

第1保護層

ポリカーボネート基板

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Abstract

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【符号の説明】

1: 情報記録媒体 2: モーター 3: 光ヘッド 4: プリアンプ回路
 6: 記録波形発生回路 7: レーザ駆動回路 8: 8-16変調器
 9: L/Gサーボ回路 10: 8-16復調器。 1
 1, 11': ポリカーボネイト基板
 12, 12': 第1保護層 13, 13': 第1保護層
 14, 14': 記録膜 15, 15': 中間層
 16, 16': 第1反射層 17, 17': 第2反射層
 18, 18': 保護コーティング層 19: 接着剤層
 T: ウインド幅 (Tw) Pr: 低パワーレベル

Pm: 中間パワーレベル

Ph: 高パワーレベル Tc: 記録パルスの最後に下げる時間

23: 凹凸状に記録ビットが形成されている基板

24, 24': 超解像読み出し膜 25: 記録ビット

26, 26': 高感度超解像読み出し層 27: 反射層 28: 基板

29: リードインエリア 30: 記録領域 31: マスク

32: 高感度超解像読み出し層材料

33: 基板上に部分的に製膜された高感度超解像読み出し層 34: 反射層材料

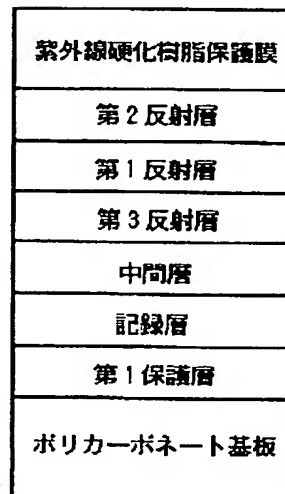
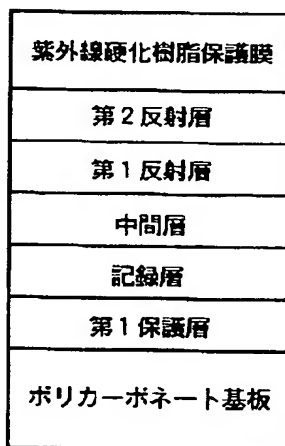
35: 基板上に一部が直接製膜された反射層。

【図1】

【図3】

図1

図3



【図5】

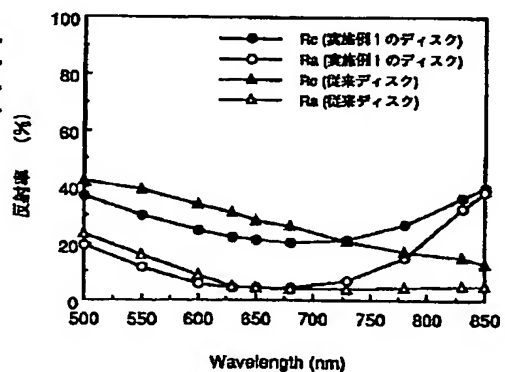
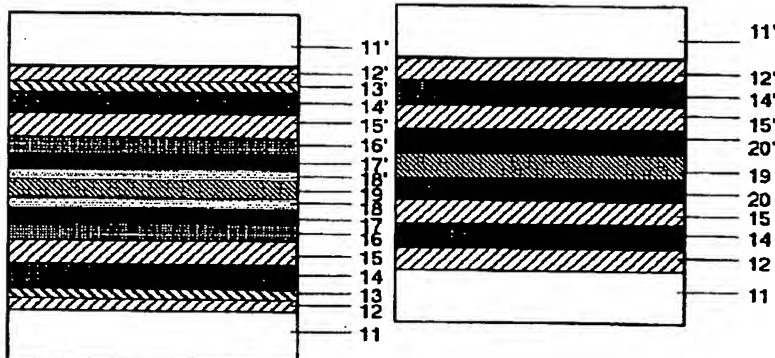
【図6】

【図9】

図5

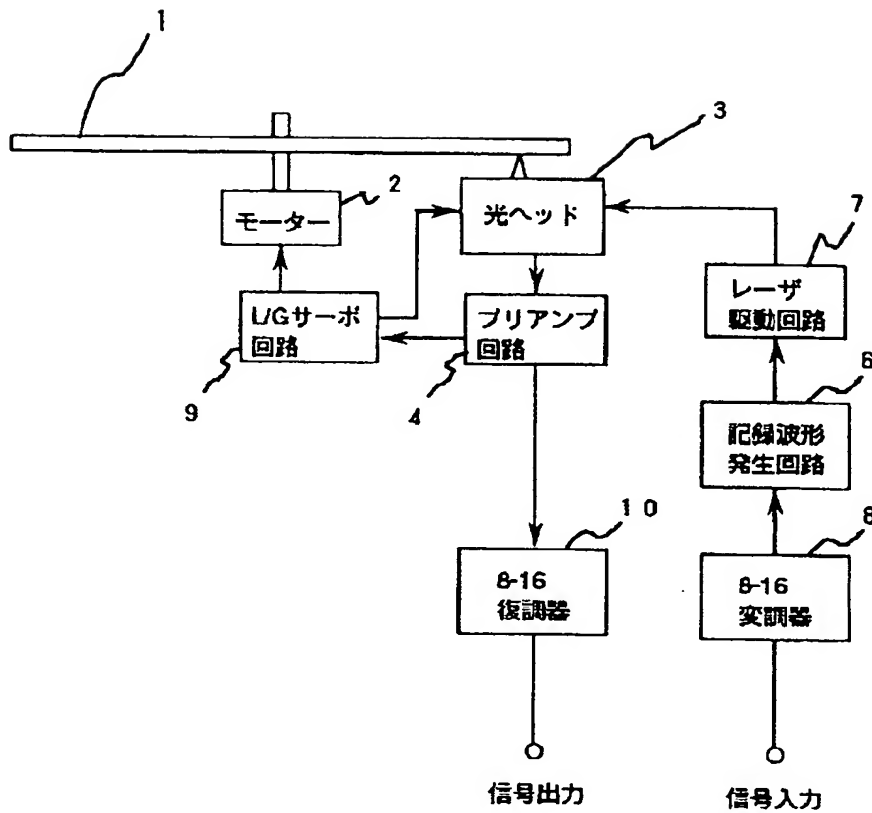
図6

図9



【図2】

図2



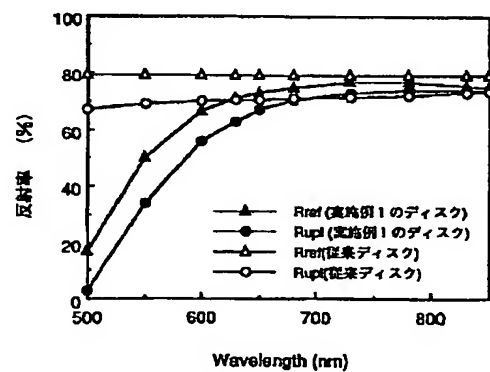
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図4

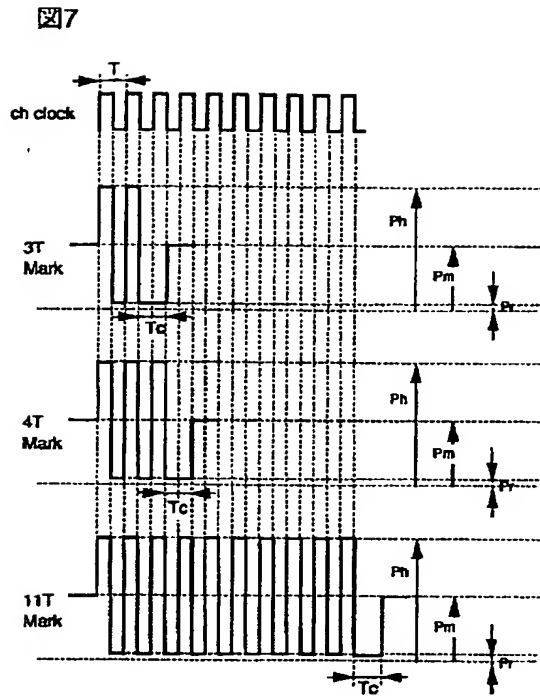
紫外線硬化樹脂保護膜
第2反射層
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中間層
記録層
第1保護層
ポリカーボネート基板

【図10】

図10

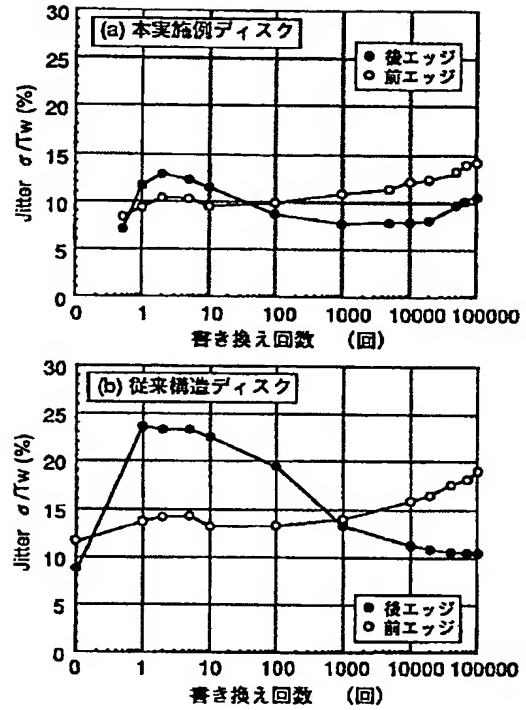


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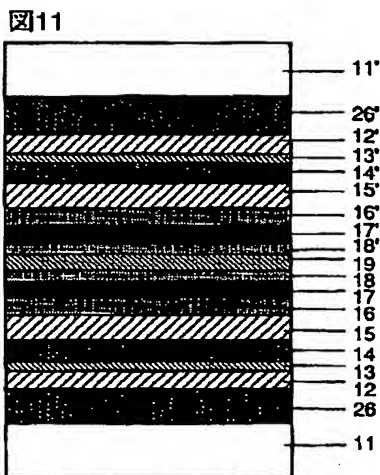


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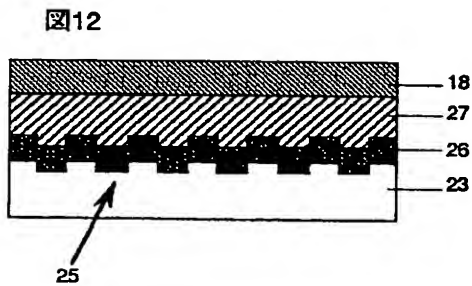
図8



【図11】

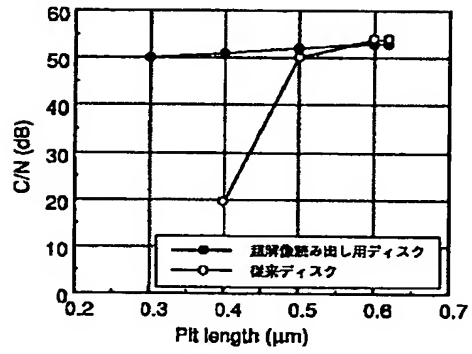


【図12】



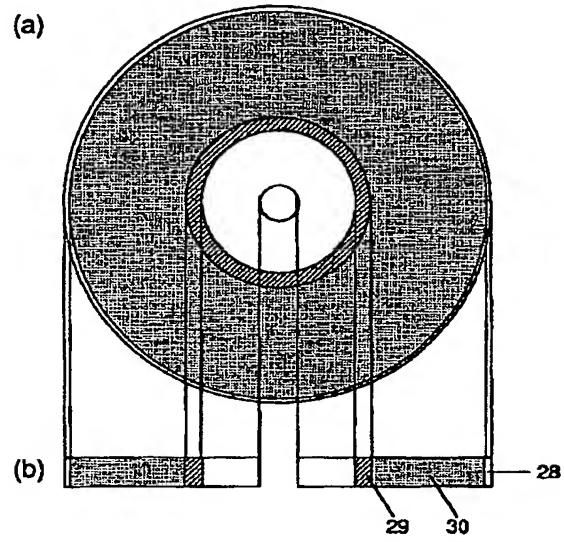
【図13】

図13



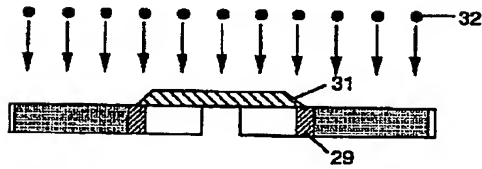
【図14】

図14

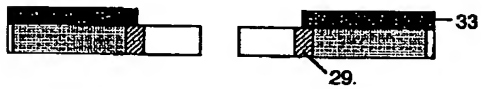


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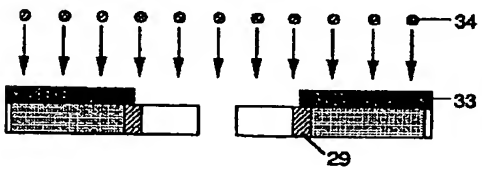
図15 (a)



(b)



(c)



(d)

